

CLAIMS

1. Regenerator for heat exchanger of the regenerative type of the fluid pre-heaters **characterized in that** within any pack (A) of three courses (1, 2, 3), lower, median and upper, respectively which are sequentially horizontally overlapped, several vertical channels (b) in the lower course (1) overlap other several vertical channels (g) in the median course (2) only, and several vertical channels (h) in the median course (2) overlap several vertical channels in the upper course (3) only, having such a flow rate for ensuring a maximum horizontal circulation of the heat carrier through all the vertical channels of the structure.

2. Regenerator according to claim 1 **characterized in that** the shape of the vertical channels in every course has a technological taper with a slope of 1 - 5%.

3. Regenerator according to claims 1 and 2 **characterized in that** the courses (4, 1, 2, 3 and 5) define several continuous vertical channels the longitudinal section of which is a sequence of pyramidal frustums having periodical cross section variation of 10 - 30 %.